STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
REPORT OF EXAMINATION
Change of: Additional Points of Withdrawal
WRTS File # CG2-28335

PRIORITY DATE	APPLICATION NO.	PERMIT NO.	CERTIFICATE NO.
11/20/1991	G2-28335	G2-28335P	CG2-28335

NAME
City of Buckley

ADDRESS/STREET	CITY/STATE	ZIP CODE
P.O. Box 1960	Buckley, WA	98321

PUBLIC WATERS TO BE APPROPRIATED

SOURCE
Wells 2, 4 and 5

TRIBUTARY OF (IF SURFACE WATERS)

MAXIMUM CUBIC FEET PER SECOND (cfs)	MAXIMUM GALLONS PER MINUTE (gpm)	MAXIMUM ACRE FEET PER YEAR (ac-ft/yr)
	150	242

QUANTITY, TYPE OF USE, PERIOD OF USE

242 ac-ft/yr	Municipal Supply	Year-round, as needed

LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION–WITHDRAWAL
Wells 2: 1720 feet North and 115 feet East of the SW corner of Section 1 T19 R6E
Wells 4: 1720 feet North and 225 feet East of the SW corner of Section 1 T19 R6E
DSHS Well 5: 1560 feet North and 355 feet West of the SE corner of Section 2 T19 R6E

SOURCE	PARCEL	LATITUDE	LONGITUDE	QTR/QTR	SECTION	TOWNSHIP	RANGE
Well 2		47.160632	-121.993263	NW/SW	1	19	6E
Well 4		47.160643	-121.992829	NW/SW	1	19	6E
Well 5 (and replacement)		47.160135	-121.995125	NE/SE	2	19	6E

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED
[Attachment 1 shows location of the authorized place of use and point(s) of diversion or withdrawal]

Area served by the City of Buckley. The place of use of this water right is the service area described in the currently approved Water System Plan, as approved by the Washington State Department of Health. RCW 90.03.386 may have the effect of revising the place of use of this water right if the criteria in section RCW 90.03.386(2) are met.

DESCRIPTION OF PROPOSED WORKS

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE	COMPLETE PROJECT BY THIS DATE	WATER PUT TO FULL USE BY THIS DATE
Started	N/A	N/A

PROVISIONS

Meter Installation

An approved measuring device shall be installed and maintained for each of the wells constructed under this water right, in accordance with "Requirements for Measuring and Reporting Water Use," Chapter 173-173 WAC.

Record and Report upon Request by Ecology

Water use data shall be recorded daily. The maximum monthly rate of withdrawal and the annual total volume shall be submitted to Ecology by January 31st of each calendar year.

Water Measuring and Data Reporting

Reported water use data shall be submitted via the Internet. To set up an Internet reporting account, access https://fortress.wa.gov/ecy/wrx/wrx/Meteringx/. If you do not have Internet access, contact the Southwest Region Office for forms to submit your data.

Metering Rule Description and Petition Info

Chapter 173-173 WAC describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition Ecology for modifications to some of the requirements. Installation, operation, and maintenance requirements are enclosed as a document entitled "Water Measurement Device Installation and Operation Requirements".

Municipal Place of Use

If the criteria in RCW 90.03.386(2) are not met and a Water System Plan/Small Water System Management Program was approved after September 9, 2003, the place of use of this water right reverts to the service area described in that document. If the criteria in RCW 90.03.386(2) are not met and no Water System Plan/Small Water System Management Program has been approved after September 9, 2003, the place of use reverts to the last place of use described by The Department of Ecology in a water right authorization.

Health Approval Required

Prior to any new construction or alterations of a public water supply system, the State Board of Health rules require public water supply owners to obtain written approval from the Office of Drinking Water of the Washington State Department of Health. Please contact the Office of Drinking Water at Northwest Drinking Water Operations, 20435 72nd Avenue S, Suite 200, K17-12, Kent, WA 98032-2358, (253) 396-6750, prior to beginning (or modifying) your project.

Authority to Access Project

Department of Ecology personnel, upon presentation of proper credential, shall have access at reasonable times, to the records of water use that are kept to meet the above conditions, and to inspect at reasonable times any measuring device used to meet the above conditions.

FINDINGS OF FACT AND ORDER

Upon reviewing the investigator's report, I find all facts relevant and material to the subject application have been thoroughly investigated. Furthermore, I find the change of water right as recommended will not be detrimental to existing rights.

Therefore, I ORDER approval of the recommended change G2-28335C under Change Application No. G2-28335, subject to existing rights and the provisions listed above.

You have a right to appeal this ORDER. To appeal this you must:

- File your appeal with the Pollution Control Hearings Board within 30 days of the "date of receipt" of this document. Filing means actual receipt by the Board during regular office hours
- Serve your appeal on the Department of Ecology within 30 days of the "date of receipt" of this document. Service may be accomplished by any of the procedures identified in WAC 371-08-305(10). "Date of receipt" is defined at RCW 43.21B.001(2).

Be sure to do the following:

- Include a copy of this document that you are appealing with your Notice of Appeal.
- Serve and file your appeal in paper form; electronic copies are not accepted.

1. To file your appeal with the Pollution Control Hearings Board

Mail appeal to:

The Pollution Control Hearings Board
PO Box 40903
Olympia, WA 98504-0903

OR

Deliver your appeal in person to:

The Pollution Control Hearings Board
4224 – 6th Ave SE Rowe Six, Bldg 2
Lacey, WA 98503

2. To serve your appeal on the Department of Ecology

Mail appeal to:

The Department of Ecology
Appeals Coordinator
P.O. Box 47608
Olympia, WA 98504-7608

OR

Deliver your appeal in person to:

The Department of Ecology
Appeals Coordinator
300 Desmond Dr SE
Lacey, WA 98503

3. And send a copy of your appeal to:

Thomas Loranger
Department of Ecology
Southwest Regional Office
PO Box 47775
Olympia, WA 98504-7775

For additional information visit the Environmental Hearings Office Website: http://www.eho.wa.gov . To find laws and agency rules visit the Washington State Legislature Website: http://www1.leg.wa.gov/CodeReviser .

Signed at Olympia, Washington, this 3rd day of June 2010.

Thomas Loranger

Thomas Loranger, Section Manager
Water Resources Program
Southwest Region Office

BACKGROUND

Description and Purpose of Proposed Change

On July 15, 2008 Dave Schmidt, City Administrator for the City of Buckley filed an Application for Change to add two points of withdrawal to Ground Water Permits G2-28335P and G2-27595P. The place of use and points of withdrawal are located in Water Resource Inventory Area 10, the Puyallup-White River watershed, approximately 6 miles southeast of Lake Tapps, in Pierce County, Washington.

The intent of these filings is to modify the City's water rights to reflect operation of Wells 2, 4, and 5 as a well field. Although Well 5 is owned by the Department of Social and Health Services (DSHS), it is used to supply the combined demands of Rainier School and Buckley, as are Wells 2 and 4. Well 5 is planned for replacement, so our change applications reflect the inclusion of the new well as one of the City's sources.

Ground water permit G2-28335P currently authorizes withdrawals from Well 2 at maximum rates of 150 gpm and 242 acre-feet per year, while ground water permit G2-27595 authorizes withdrawals from Well 4 at maximum rates of 280 gpm and 36 acre-feet per year. Both wells are located in the NW ¼ SW ¼ of Section 1, T19N, R6E.

The additional point of withdrawal is Well 5 and its proposed replacement. Well 5 is located approximately 500 feet west of Well 2, in the NE ¼ of the SE ¼ of Section 2, T19N, R6E. Well 5's replacement will be located in the same ¼-¼ section as the current well.

Attributes of the Certificate and Proposed Change

Table 1 Summary of Proposed Changes to Water Right No. G2-28335

Attributes	*Existing*	*Proposed*
Name	City of Buckley	City of Buckley
Priority Date | Date of Application for Change	11/20/1991	July 15, 2008
Instantaneous Quantity	150	150
Annual Quantity	242	242
Source	Well 2	Wells 2, 4, 5 and Replacement Well 5
Point of Diversion/Withdrawal	NW ¼ SW ¼ , Sec. 1, T19N, R6E	Well 2 and 4 - NW ¼ SW ¼ , Sec. 1, T19N, R6E. Well 5 NE 1/4 SE 1/4, Sec. 2, T19N, R6E
Purpose of Use	Municipal	Municipal
Period of Use	Year-Round, as needed	Year-Round, as needed
Place of Use	Area served by the City of Buckley	Area served by the City of Buckley

Legal Requirements for Proposed Change

The following is a list of requirements that must be met prior to authorizing the proposed change in point of withdrawal.

- **Public Notice**

A public notice of the proposed change was published on August 20th, and 27th. No protests were received as a result of this notice.

- **State Environmental Policy Act (SEPA)**

The governmental action relating to the subject application is exempt from the "detailed statement" preparation requirements of SEPA (WAC 197-11-800(4)). The application neither involves appropriations of one (1) cubic feet per second or more of surface water for irrigation purposes or appropriations of 2,250 gallons per minute or more of ground water for any purpose.

- **Water Resources Statutes and Case Law**

Chapter 90.44 RCW authorizes the appropriation of public water for beneficial use and describes the process for obtaining water rights including the process to amend or change existing rights. Laws specifically governing the water right permitting process are RCW 90.03.250 through 90.03.340 and RCW 90.44.060. Changes or amendments to these rights are covered under RCW 90.03.380 and RCW 90.44.100.

INVESTIGATION

The investigation of this change application is based on a site visit, discussions with David Schmidt, Buckley's City Manager, review of information submitted by the applicant, and relevant Department of Ecology records, including water rights, well construction logs, and other hydrogeologic information.

History of Water Use

The City of Buckley was founded in 1889, and its first gravity-flow water system was constructed in 1907. The City originally used a series of springs, located near the present day treatment plant, but, by the 1920's, had developed the South Prairie Creek supply that meets the majority of the City's current water needs.

Buckley's Well 1, located on the west side of Buckley, is believed to have been constructed in the early 1960's. Buckley's Wells 2, 4, and 5 constitute the City's east well field. Wells 2 and 4 were constructed in 1989 and 1990, respectively. Dept. of Social and Health Service's Well 5, on the Rainier School property was constructed prior to 1940.

The Trail Well (TW-1), located on the south side of Buckley, was constructed in 2005 as a test well and has not been used or permitted.

Proposed Use

Water will remain in use for municipal purposes.

Other Rights Appurtenant to the Place of Use

The City of Buckley currently supplies water from five sources, including a surface-water diversion on South Prairie Creek and 4 wells. The appurtenant water rights and related wells are listed in Table 1.

Table 1. City of Buckley Water System

Source	Type	Location of Point of Withdrawal	Casing Size	Yield (gpm)	Construction Date
South Prairie Creek	Surface Water	SE 1/4 NE 1/4, Sec. 31, T19N, R7E	N/A	750	
Well 1 (Naches Well)	Production Well	NW 1/4 SW 1/4, Sec. 3, T19N, R6E	10	260	Pre-1968
Well 2	Production Well	NW 1/4 SW 1/4, Sec. 1, T19N, R6E	8	120	11/10/1989
Well 4	Production Well	NW 1/4 SW 1/4, Sec. 1, T19N, R6E	12	400	4/20/1990
Well 5 (Rainier School)	Production Well	NE 1/4 SE 1/4, Sec. 2, T19N, R6E		270	Pre-1940
TW-1 (Trail Well)	Test Well	NE 1/4 NE 1/4, Sec. 9, T19N, R6E	6	250	10/21/2005

Water Right Settlement

The City of Buckley's water rights have been the subject of intense negotiations with the Department of Ecology. In 2005, as part of a stipulated settlement agreement between the State and the City, Ecology agreed to amend the City's rights to increase the annual quantity from 706 to 1354 ac-ft/yr.

Under this settlement agreement, the City was required to retrofit their existing South Prairie Creek diversion works so that, to the maximum extent possible, only the amount of water that can be treated and used in the City's municipal system (or used for irrigation under DSHS's water right) is diverted. In May of 2008, the City completed the installation of the new inlet control valve. The infrastructure consisted of a motor- actuated butterfly valve within a vault located immediately upstream of the Water Treatment Plant. The control valve has been set up to maintain a constant water level in the sand filter. The valve controls can be set to reduce the overflow of unused raw water at the plant.

However, due to concerns regarding the potentially damaging effects of high pressure on the deteriorating water transmission main, the valve is not configured to completely eliminate the overflow of raw water. The overflow rate can be calculated using measurements of the flow from the raw water inlet bay. The measurement is recorded by a new ultrasonic level sensor at a v-notch weir.

The City intends to monitor the overflow rate and then use the inlet control valve to reduce overflows, while protecting the integrity of the transmission main. The City reports its water use to the Department of Ecology each year, as required.

City of Buckley Water Rights – with Stipulated Settlement provisions enacted:

WR. #	Source	GPM	Ac-ft (Additive)	Status
369-A	S. Prairie Cr.	898 (2 cfs)	896	Certificate
G2-01024	Well #1	450	180	Certificate
G2-28335	Well #2	150	242	Permit
G2-27595	Well #4	280	36	Permit
Total		1,778	1,356	

The settlement directs Ecology, at the City's election, to either

- issue superseding documents for Groundwater Certificate G2-01024C and for Permits G2-28335 and G2-27595, totaling 458 ac-ft/yr primary quantities, or
- if the City wishes to transfer these rights to an alternate site via an *Application for Change* process, issue superseding documentation authorizing withdfawal of 458 acre-feet per year of primary quantities at source(s) selected by the City.

Approval of the *Applications for Change* is contingent on whether the transfer meets the following criteria of RCWs 90.03.380 and 90.44.100:

- the change must not impair other water users or instream flows,
- the wells must withdraw from the same body of water, and
- the combined withdrawals from the existing wells and replacement wells not exceed the quantities authorized for the existing wells.

Hydrogeologic Evaluation

The following reports were useful during this investigation:

- Robinson and Noble, April 2, 1985, "Inspection of Rainier School water well." Letter report to Washington Division of Engineering and Architecture".
- Robinson and Noble, January 1991, City of Buckley, Eastside Well Field, Construction Report".
- Pacific Groundwater Group, October 2008, "City of Buckley Water Supply, Hydrogeologic Evaluation".

The intent of the Water Right Change Application for CG2-28335 is to facilitate operation of Wells 2, 4 and 5 as a well field. If approved, these changes will allow the City to use all three wells in any combination. In practice, this arrangement is already occurring, with the City frequently using Well 5 instead of Wells 2 and 4.

Hydrogeologic Setting

Topography in the Buckley area is relatively flat as a result of the Osceola Mudflow (volcanic lahar from Mt. Rainier) that inundated the area about 5,600 years ago. The mudflow plain has been cut by the White River, which courses through the Buckley area from east to west. Topography in the southeastern half of the area consists of rolling hillsides underlain by dense glacial till or bedrock.

Land use in the area is largely residential, except for downtown Buckley, which is mixed commercial and residential.

The most significant hydrogeologic feature in the Buckley area is the Osceola Mudflow, a volcanic lahar, which covers most of the ground surface. The mudflow was deposited during one catastrophic event that covered the pre-mudflow topography, leaving a flat plain of poorly permeable soil. Aquifer units do not generally occur within this deposit. Most importantly for groundwater conditions, the mudflow limits direct recharge from precipitation to shallow aquifers beneath Buckley. Deeper aquifers in the area have larger recharge areas and so are less affected by the reduced recharge.

Pre-Osceola mudflow geologic units include ancestral White River alluvium, sediments deposited during Vashon Stade of the Fraser Glaciation, undifferentiated deposits that likely contain older mudflows, and pre-Vashon landslide deposits. The complexity of the interlayering increases from west to east. In the western portion of the study area, pre-Oceola Mudflow units appear to be more consistent than in the eastern portion, near the bedrock uplands south and east of Buckley.

The Buckley area receives approximately 33 in/yr of precipitation. Infiltration and recharge are limited by relatively low permeability surface deposits, including exposed volcanic rock, till capped hills, and the Osceola mudflow. These conditions result in a significant amount of runoff and relatively low local recharge.

Well Information

Well 2 was originally drilled to 217.5 feet below ground surface (bgs), but the deepest aquifer unit encountered produced poor water quality. For this reason, the lower portion of the well was isolated with a cement plug and the casing was perforated 90 to 105 feet bgs. This well initially produced water at a rate of 150 gpm, but production has declined and today the well appears capable of producing 110 gpm for 100 days[1], with a maximum depth-to-water of about 80 feet.

Well 4 is 70 feet deep, is screened from 37 to 66.4 feet bgs, and is completed in the shallower aquifer. The well's yield is 300 to 400 gpm, which exceeds the current water right. Based on available data Well 4 should be able to provide peaking supplies of good quality water. Wells 2 and 4 are located approximately 110 feet from each other, within the same quarter/quarter section. Although RCW 90.44.100 would allow the City to operate both wells under either water right if Buckley filed showing of compliance forms with Ecology, formal change applications were filed to update and clarify the City's water right portfolio, plus legalize the use of Well 5 as an additional point of withdrawal. Well 5 is situated only 600 feet from Wells 2 and 4; however the well is located in an adjoining section.

Aquifer Testing

Pumping test results tell us that Well 2 taps water-bearing units in undifferentiated deposits with a relatively low transmissivity compared to the deeper aquifer unit originally penetrated by this well. PGG concluded that Well 4 taps a shallower transmissive aquifer that appears to be limited in aerial extent. The aquifer occurs within old river alluvium (likely ancestral White River channel) that was subsequently buried by the mudflow. Because the aquifer is of limited extent and volume, it is not a good year-round source. PGG refers to the aquifer Well 2 is completed in as the deeper aquifer.

There is some uncertainty about the construction of Well 5, because no well log is available. However, a video log of Well 5 in 1985 suggested "apparent water entry" occurs from depths near the static water level (32 feet bgs) to 90 feet bgs —a range that spans the entire thickness of the Qaol aquifer, the underlying aquitard (Qt), and the top of the deeper aquifer (Qu). Based on this information, PGG suggests that Well 5 is open to both the shallower and deeper aquifers. Buckley has indicated plans to replace Well 5. WAC 173-160-181 states that in constructing water wells natural barriers to ground water movement between aquifers must be preserved. Therefore, as Well 5 appears to be completed in two aquifers it should be decommissioned and replaced with a new well completed in only one aquifer.

Varying Interpretations of Well Water Level and White River Stage Data

In 1990, Robinson & Noble collected water level data from Well 5, as an observation well during a 3-day pumping test of Well 4. During that test Well 5 exhibited 0.83 feet of interference drawdown. This decline occurred over a 6-day period including 3 days during the pumping of Well 4 and 3 days after the pump was shut down. From 6 to 15 days after pumping started, Well 5 water levels stabilized. Robinson & Noble's report suggests this response indicates dewatering of the aquifer tapped by Well 4.

Hart Crowser (2003), as technical advisors to Ecology, reinterpreted the Robinson & Noble evaluation and concluded that the data show "...significant hydraulic connection between the shallow aquifer and the White River..." Hart Crowser asserted that the water levels at Well 5 declined in response to White River flows, but not due to Well 4 pumping.

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[1] Well 2 was originally rated for 150 gpm, with 75 feet of drawdown (Robinson &Noble, 1990)

Although PGG's 2008 report favored Hart Crowser's interpretation of river influence on the Well 5 aquifer over Robinson & Noble's interpretation of no river influence, they also suggested that the decreasing water levels in Well 5 suggest a complex picture. Specifically PGG's suggests that the connection of Well 5 to the river may occur through the deeper aquifer and not the shallow aquifer.

PGG's 2008 report also includes a figure with continuous transducer data collected from Wells 2 and 4 for the period from early May 2008 to early August 2008. Those data indicate two pumping cycles for Well 2, limited use of Well 4, and stage data from the White River. Based on similar water levels, both Well 2 and Well 4 are hydraulically connected. This conclusion is supported by data gathered during an aquifer test conducted in 2008 during which Well 4 responded to Well 2 pumping.

The 2008 transducer data were also plotted against White River stage data in Figure 4 of the PGG report. One interpretation is that those data suggest a possible correlation between Well 2 water levels and White River stage. However, PGG suggests this relationship may instead be associated with normal seasonal variation and should not be construed as proof of hydraulic connection between the river and the aquifer tapped by Well 2. This latter interpretation is supported by Figure 6 in the PGG report which is a plot of Well 2 and Well 5 water levels versus White River stage during a Well 4 pumping test. In that plot there is no apparent correlation between the Well 4 water levels and White River stage. The plot is less useful for determining a potential connection between Well 5 and the White River, since the Well 5 water level was dropping throughout the 7-day test. PGG indicated this drop was due to continuous pumping of the well (pers. com. with Linton Wildrick, 2/22/09).

Hydrogeologic Conclusion
Although two or more aquifer units of varying character occur beneath the Osceola Mudflow around Buckley's east well field, they appear to be interconnected. Specifically, Well 2 and Well 4 pumping affect one another. In addition, Robinson & Noble's 1990 test appears to indicate a connection between Well 4 and Well 5. Regarding the potential connection between these wells and the White River, Hart Crowser's conclusion was that there is a fairly direct connection, while PGG suggests the connection may be more complex. Either way it is clear that a hydraulic connection between all three of these wells and the White river does exist.

Same Body of Public Groundwater
Ecology derives its authority to transfer diversion and withdrawal points between surface and groundwater bodies from RCW 90.03.380, 90.44.020-030, 90.44.100 and 90.54.020(9). In order to approve applications, a determination must be made that all subject well(s) tap that same source of water. Surface waters and/or groundwater in hydraulic connection are considered to be within the same source if they meet the following four conditions:

1. They share a common recharge area.
2. They are part of a common flow regime.
3. They are separable from other water sources by effective barriers to hydraulic flow.
4. They are an independent water body for the purpose of water right administration.

Based on the hydrogeologic information described above, it is clear that all four of the above conditions apply and therefore that Wells 2, 4, and 5 all tap the same body of groundwater.

Potential Impairment
Ecology's Water Rights Application Tracking (WRATS) database was queried to assess existing water rights (certificates and permits) in a one mile radius around the east well field. As indicated in the table below, the City's wells are relatively isolated with two other water users represented by claims. The groundwater claim filed by Charles Tuggle places the first date of water use as 1974, making this use exempt to the extent that he has used less than 5,000 gpd and irrigates less than ½ acre. The Bottineau groundwater claim contains no information regarding date of first water use, or even type of use.

The remaining water rights and applications are associated with the Cascade Water Alliance's Lake Tapps Water Supply Project which will not be affected by this change. Ecology well log records indicate no other wells have been constructed within this approximate one mile radius.

Table 1. Water rights within one Mile of Buckley's east well field.

File #	Person	Doc	Date	Purpose	Qi	TRS	Source
S2-163650CL	TUGGLE CHARLES H	Claim L		ST,IR		19.0N 06.0E 01	POND
G2-163651CL	TUGGLE CHARLES H	Claim L		ST,IR		19.0N 06.0E 01	WELL
S2-158169CL	BOTTINEAU LEE D	Claim L		IR,DG		19.0N 06.0E 01	SPRING
G2-158170CL	BOTTINEAU LEE D	Claim L		NR		19.0N 06.0E 01	WELL
G2-28335	*Buckley City*	*Pmt*	*11/20/1991*	*MU*	*150 gpm*	*19.0N 06.0E 01*	*WELL*
G2-27595	*Buckley City*	*Pmt*	*8/22/1989*	*MU*	*280 gpm*	*19.0N 06.0E 01*	*WELL*
S2-29920	Puget Sound Energy	NewApp	6/20/2000	DM,CI	2000 cfs	19.0N 06.0E 02	WHITE RIVER
R2-29935	Puget Sound Energy	NewApp	9/15/2000	DM,CI		19.0N 06.0E 02	Lake Tapps Reserv
G2-302266CL	RAINIER SCHOOL	Claim		OT,MU		19.0N 06.0E 02	WELL
S2-160822CL	PUGET SOUND POWER &	Claim L	4/17/1895	PO		19.0N 06.0E 02	WHITE RIVER

Under the provisions of Chapter 173-510 Washington Administrative Code (WAC), *Instream Resources Protection Program - Puyallup River Basin, Water Resources Inventory Area 10,* minimum flows were established for the Puyallup River, and the White River is closed to further consumptive withdrawals. This restriction applies to groundwater withdrawals that affect the surface water system, as well as surface water diversions that reduce groundwater recharge that would ultimately reach the White River. Any water rights issued at this time are subject to regulation to maintain Puyallup River minimum flows, and thus the proposed diversion cannot be approved if it would lead to decreased flows in the White River or other closed tributaries of the Puyallup River.

The subject well is located in an agricultural area relatively removed from other wells. The requested changes to CG2-28335 would not result in any increased pumping from the well field and instead would simply allow Buckley flexibility to pump any combination of the three associated wells under existing water rights. As such, it is very unlikely that approval of these changes will impair certificated or claimed water rights in the area or protections for the Puyallup and White rivers under Chapter 173-510 WAC.

Effects to Surface Water

Because this application addresses a change of an existing water right, it represents no net increase in water quantity. All three of the existing wells, as well as the Well 5 replacement well draw water from the same body of public ground water and are located within close proximity of one another.

CONCLUSIONS

Validity and Extent of Water Right The Department of Ecology's policy on tentative determinations of water rights (*Water Resources Program Policy for Conducting Tentative Determinations of Water Rights, Policy POL 1120*) provides that a simplified tentative determination may be conducted when evaluating municipal water rights.

Ground water permits G2-28335 and G2-27595 are held by the City of Buckley for municipal water supply purposes. Both rights are in good standing with a final development schedule that is contingent on these transfers being completed. Both wells are equipped to produce the authorized withdrawal rate.

Hydrogeologic Analysis Evaluation of the hydrogeological information available for this area indicates the current and proposed wells are completed within the same source of public ground water.

Impairment of Other Water Rights The operation of Wells 2, 4, and 5 as a wellfield will not impair neighboring water users or adversely affect instream flows established for the basin.

Public Welfare In the evaluation of these applications for change, no determent to the public welfare was identified.

RECOMMENDATIONS

Based on the above investigation and conclusions, I recommend that the request for change to add additional points of withdrawal to facilitate the operation of Wells 2, 4, and 5 as a wellfield be approved in the amounts and within the limitations listed below and subject to the provisions beginning on Page 2.

Purpose of Use and Authorized Quantities

The amount of water recommended is a maximum limit and the water user may only use that amount of water within the specified limit that is reasonable and beneficial:

- 150 gpm
- 242 acre-feet per year
- Municipal

Place of Use

As described on Page 1 of this Report of Examination.

Report by: Michael J. Gallagher 5/20/10

Michael J. Gallagher, LHG — Date
Water Resources Program

If you need this publication in an alternate format, please call Water Resources Program at 360 407-6300. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.